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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,924	08/21/2003	Cedric Dieleman	53879	7366
26474	7590	07/26/2005	EXAMINER	
NOVAK DRUCE DELUCA & QUIGG, LLP			CAMERON, ERMA C	
1300 EYE STREET NW			ART UNIT	
SUITE 400 EAST			PAPER NUMBER	
WASHINGTON, DC 20005			1762	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/644,924	DIELEMAN ET AL.	
	Examiner	Art Unit	
	Erma Cameron	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-3, 5-9 and 11-15, drawn to a method of coating, classified in class 384, subclass 384.
 - II. Claim 10, drawn to an article, classified in class 428, subclass 411.1+.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Group I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the article as claimed can be made by a materially different process, such as applying B in gaseous form.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Jason Voight on July 21, 2005 a provisional election was made WITH traverse to prosecute the invention of Group I, claims 1-3, 5-9 and 11-15. Affirmation of this election must be made by applicant in replying to this Office action. Claim 10 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

7. The disclosure is objected to because of the following informalities:

- typos at 2:3, 5

Appropriate correction is required.

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8. The use of the trademarks such as Silikon DMS has been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Drawings

9. The drawings are objected to because: Figur should be spelled Figure.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1-3, 5-9 and 11-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

At 10:15, the height difference is given as 0.05-200 microns, which is different than is stated elsewhere, including the claims.

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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13. Claims 1-3, 5-9 and 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1: low (line 2), many (line 4) and low-molecular-weight (lines 9/10) have not been defined and are therefore vague.

b) Claim 1: it is not clear if substances B1 are both low MW and oligomeric, or if these are two separate categories of B1. If there is two categories of B1, does "which are liquid" modify both or only "oligomeric substances"?

c) Claim 8: what boundary is being referred to?

d) Claim 9 and 11: should be put into Markush terminology – selected from the group consisting of.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1-3, 5-9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1206976.

'976 teaches waterproofing surfaces by creating microstructures of 10 nm-10 microns height and 20nm-10 microns spacing, by application of hydrophobizing agents such as silicone oil that may be applied undiluted ([0023]and [0028] of translation).

The spacing and height overlap with those claimed by applicant.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness. See *In re Malagari* 182 USPQ 549.

Because the silicone oil is one of the hydrophobizing substances used by the applicant, the silicone oil of '976, serving as substance B1, inherently would meet the limitations of kinematic viscosity, vapor pressure, static contact angle and the surface tension limitation of claims 3 and 8.

'976 fails to teach the g/m² amount of the application, but it would have been obvious to one of ordinary skill in the art to have optimized the application amount through no more than routine experimentation.

The application of silicone oil is at 0-250 degrees C [0038], thus meeting the limitations of claim 6.

Applicant has argued in the 7/12/2005 amendment/reply that it is important that B be a liquid. Silicone oil is a liquid and may be applied undiluted.

16. Claims 1-3, 5-9 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller et al (US2002/0059974).

'974 teaches hydrophobizing a polymer film having a microstructured surface of 50 nm-10 um in both spacing and height [0019].

The spacing and height overlap with those claimed by applicant.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness. See In re Malagari 182 USPQ 549.

One of the materials used to hydrophobize are fatty alcohols with more than 8 carbon atoms [0038]; these are among the substances used by applicant (decanol, undecanol and dodecanol of 7:14-17 and Examples 3-7). Therefore the fatty alcohols of '796 inherently would meet the limitations of kinematic viscosity, vapor pressure, static contact angle and the surface tension limitation of claims 3 and 8.

'974 fails to teach the g/m² amount of the application, but it would have been obvious to one of ordinary skill in the art to have optimized the application amount through no more than routine experimentation.

The application is at RT (see Example 1), thus meeting the limitations of claim 6 and 13.

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17. Claims 1-3, 5-9 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oles et al (US2003/0124301).

'301 teaches making surfaces self-cleaning by creating elevations and depressions of 20 nm-100 microns height and 20 nm-100 microns spacing on a surface by applying particles in a solvent [0018], [0032].

The spacing and height overlap with those claimed by applicant.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness. See *In re Malagari* 182 USPQ 549.

The solvent may be octanol or decalin, and may solvate the surface [0034]. The solvent is applied preferably at 25-100 degrees C [0035], thus meeting the limitations of claims 6 and 13.

Because octanol and decalin are among the hydrophobizing substances used by the applicant, the octanol or decalin of '301, serving as substance B1, inherently would meet the limitations of kinematic viscosity, vapor pressure, static contact angle and the surface tension limitation of claims 3 and 8.

'301 fails to teach the g/m² amount of the application, but it would have been obvious to one of ordinary skill in the art to have optimized the application amount through no more than routine experimentation.

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Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erma Cameron whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ERMA CAMERON
PRIMARY EXAMINER

July 22, 2005

Erma Cameron
Primary Examiner
Art Unit 1762